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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/851,868	05/09/2001	Stanley W. Stephenson	82633RLO	4959

7590 09/30/2003
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EXAMINER

LIU, MING HUN

ART UNIT	PAPER NUMBER
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2697

DATE MAILED: 09/30/2003 7

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/851,868

Applicant(s)

STEPHENSON ET AL.

Examiner

Ming-Hun Liu

Art Unit

2697

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, part d) the claim reads that the voltage divider means is responsive to (both) the first and second fixed voltages. However later in part e), the voltage divider is responsive to only one, namely after the selection process. Is the voltage divider responsive to either fixed voltages or just the one selected? These are two conflicting statements and thus deeming the claim indefinite.

The same indefiniteness applies to claim 5.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-10 are rejected under 35 U.S.C. 102(b) as being unpatentable by US patent 6,198,466 to Morich et al. using the same grounds of rejection as presented in the previous office action paper number 4 and repeated again below.

Morich describes an apparatus for driving a cholesteric liquid crystal display comprising cholesteric liquid crystal having a first planar reflective state and a second transparent focal conic state, which is respectively responsive to different applied fields (column 2, lines 4-7). With the addressing structure having rows and columns of conductors arranged so that when a column and a row overlap, they define a selectable pixel or segment to be viewable or non-viewable (column 2, lines 3-4). It also includes a means for switching between a first and a second fixed voltage (column 2, lines 7-11). A voltage divider means responsive to the first and second fixed voltages for providing one of two selectable voltages for each column and one of two selectable voltages for each row (column 2, lines 32-36 and column 2, lines 41-43). And finally a means for selecting one of the first and second fixed voltages for causing the voltage divider means to provide one of two voltages for a column and one of the two voltages for a row so that a voltage for a particular pixel or segment which will cause such pixel or segment to be in a transparent or reflective state (column 2, lines 32-48).

In reference to claim 2, Morich also describes the apparatus of claim 1 with a voltage providing means as a single chip (figure 6, item 90)

In reference to claim 3, Morich describes a voltage divider means that includes a series of resistors (figure 8).

In reference to claim 4, Morich describes an apparatus similar to claim 1 further including a means responsive to an input signal for causing the selection of appropriate diodes to

provide the appropriate voltage at a selected pixel or segment of the display (figure 6, item 80 and column 7, lines 46 - column 8, line 6).

Claim 5 is rejected on similar grounds presented in the rejection of claim 1.

Claim 6 is rejected on similar grounds presented in the rejection of claim 2.

In reference to claim 7, V_{max} can be on the high voltage, V_{bright} at 60V (table 1).

In reference to claim 8, on column 2, lines 65 where it is stated that a reference zero voltage is used before a V_{max} is presented.

Claim 9 is rejected on similar grounds presented in the rejection of claim 3.

In reference to claim 10, Morich clearly teaches a means responsive to an input signal to supply the appropriate voltages to the pixels (column 2, lines 23-33).

Response to Arguments

5. In reference to arguments concerning the rejection of claim 1, Morich very clearly supplies fixed voltages V_{max} and V_{trans} to the voltage divider. Naturally there is a means for selecting on the first and second fixed voltages column 2, lines 30-32, for the purpose of changing from one state to another. It is also apparent from the passage that the voltage dividing means is responsive to the first and second voltages resulting in V_{max} , $V_{max}/3$, and $2V_{max}/3$. And finally, it is also shown in Morich teaches a row driver that receives "at least one of the output voltages (1 of 2 of the claimed voltages) from the voltage multiplier... also can provide zero volts (2 or 2 of the claimed voltages).

In reference to the remarks on page 6, paragraph 2 and 3, the claims do not reflect nor suggest any the differences that the applicant is suggesting, therefore the arguments are deemed moot.

Furthermore, even if Morich's invention is not entirely the same as the disclosed invention it would have been obvious to one skilled in the art to recognize that in bistable displays, at least two voltages will be required to drive the display elements into their stable states. There are several different methods of providing distinct voltages into a system, such as multiple voltage sources or voltage dividing circuits. Selecting a proper voltage source is a design specification that is known to ones practiced in the art and there has been no disclosed criticality in the disclosure to suggest that this particular embodiment is inventively unique.

In reference to claim 3, there are a series of resistors in the circuit disclosed therefore the statement of rejection remains correct, because when referring to figure 8, a series of resistors are obviously present. Even if the applicant amends the claim to limit the interpretation further, it is well known in the art that the simplest voltage dividing circuit comprises a series of resistors. There is no innovation in limiting a voltage divider to include a series of resistors, since that fact is extremely conventional if not inherent to the voltage dividing circuits.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent 6,459,418 to Comiskey et al.: Bistable display with voltage dividing circuit

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

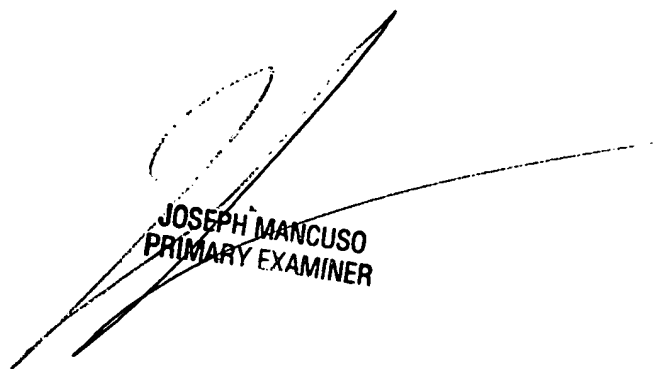
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ming-Hun Liu whose telephone number is 703-305-8488. The examiner can normally be reached on Mon-Fri.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Mancuso can be reached on 703-305-3885. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4750.

Ming-Hun Liu



JOSEPH MANCUSO
PRIMARY EXAMINER